



7-80-1 Traffic Volume Data and Review (Intersection Counts)

Date

1.1 Originator

This section not yet written.

1.2 Introduction

1.3 Process

1.4 References

John Doe
Author

1/21/2015
Date

7-80-5 Traffic Forecasting

Updated January 6, 2020

5.1 Originator

Systems Planning & Operations - Planning

5.2 Introduction

Traffic forecast requests must be submitted to the SW Region Traffic Forecasting Contact (information in References section below) for processing. This contact will review and submit requests to Central Office. Central Office will not accept requests directly from region staff. The completed traffic forecast will be returned to the SW Region Traffic Forecast Contact and forwarded on to the individual that made the original request.

Please read through this guidance since some traffic forecasts are no longer required for projects while other forecasts will need to be completed by the engineering unit and therefore will not be submitted to central office (Planning Level Forecasts). Referencing [Table 1.4.1 WisDOT Traffic Forecasting Requirements](#) of the Transportation Planning Manual will assist you in determining whether the forecast is required to be submitted to the SW Region Traffic Forecasting Contact. Review and only submit traffic forecast requests that meet the new criteria.

As stated in The National Highway System (NHS) designation, jurisdiction of the roadway, and the project improvement type help determine if a forecast is required and the type of forecast (Planning Level or Project Level) necessary. See the [National Highway System WisDOT webpage](#) for maps and more information about NHS. Forecasts are required for all projects if an Environmental Impact Statement (EIS) or Environmental Assessment (EA) is being prepared. A Categorical Exclusion (CE) or Environmental Report (ER) project may not require a traffic forecast.

If the project is on the local road system, the local municipality is responsible for forecast development. The local road system consists of county trunk highways and other local city, village, or town roads not on the state trunk highway system. Local municipalities manage and own local roads (jurisdiction).

5.3 Process

1. If it is determined that Project-Level Forecast is required.

The following information is required for a Traffic Forecast Request to Central Office:

- Completed form [DT1601](#) including:
 - Preparer's name/phone/email
 - Project ID
 - Due date, which will be determined by the type of forecast; SIMPLE or COMPLEX (so plan accordingly)
- Attach a map showing the project location.
- Attach the Concept Definition Report (CDR)
- Diagrams of intersections to be forecasted
- Previous forecasts if you have them

- Traffic count or special count information you may have
- Any Traffic Impact Analysis (TIA) information that you may have
- Turning movement counts - turn counts must be within the last 3 years and are required for turning movement forecasts. If you are submitting turning movement counts, it is preferable to have the data in Excel.

5.4 References

[Table 1.4.1 WisDOT Traffic Forecasting Requirements](#) of the Transportation Planning Manual

[National Highway System WisDOT webpage](#)

Traffic Forecast Request ([DT1601](#))

[WisDOT Traffic Counts](#)

[Transportation Planning Manual \(TPM\), Chapter 9](#)

Planning-level forecasts/Project-level forecasts – this includes the link to the Planning Level Forecast Spreadsheet

[WisDOT Traffic Forecasting Webpage](#)

SW Region Traffic Forecasting Contact - Jean Mancheski, jean.mancheski@dot.wi.gov

Jean Mancheski

10/16/2014

Author

Date

7-80-10 Safety Certification Process

Updated December 21, 2021

10.1 Originator

Systems Planning & Operations - Traffic

10.2 Introduction

This section describes the process of analyzing traffic safety and crash data required for an improvement project.

10.3 Process

When gathering and analyzing crash data for a project, it is important to determine what type of project it is. From a traffic safety standpoint, projects can generally be grouped into two categories: Highway Safety Improvement Program projects (HSIP) and Non-HSIP projects. Note that some traditional projects may have HSIP funding tied to them for certain items or work, like shoulder widening or an intersection improvement. All non-HSIP projects will be required to follow the Safety Certification Process (SCP), which is outlined in [FDM 11-38](#). In the SW Region, the SCP is completed by the Traffic Safety Engineer, submitted to the Scoping Engineers and approved by the **Traffic Supervisor**.

Stand-Alone HSIP Projects

A Safety Certification is not required, because the location has already been identified as problematic. The crash data submitted with a HSIP application does not normally need to be updated after the scoping process. However, the Region's BPD Oversight Engineer may request it. The Regional Traffic Safety Engineer can provide this update if needed.

3R and Backbone Projects

During the scoping process, crashes from the **Safety Certification Mapping Tool** are pulled for the entire project. Additionally, all PDP segments and crashes within the project are provided on a map and in spreadsheet format. These files are located in **Box** in the project's "Traffic" folder. All crashes on flagged PDP segments, or flagged intersections, are reviewed by the Traffic Safety Engineer to determine if there **are treatable crashes**. If countermeasures are proposed to treat a flagged segment, or flagged intersection, within a project, an Interactive Highway Safety Design Module (IHSDM) analysis **is required** and completed by the Traffic Safety Engineer. In some cases, PDS may need to assist with cost estimating on things like curve reconstruction, shoulder widening that requires grading, or intersection reconstruction. There is an annual lag in the timeframe in which crash data becomes "finalized" within the Transportal crash database. Once it is final, there is additional delay in updating each Region's Meta-Manager database, which calculates the PDP segment crash rates and crash flag values. Meta-Manager data from one year is typically not finalized until around 7 or 8 months into the next year. So, for example, if the Safety Certification is being completed in August of 2019, 2014-2018 crash data would be optimal, but 2013-2017 would also be acceptable. If the crash data is older

than the timeframe of the example above, for non-HSIP projects, the newer years of data and reports can be requested through the Regional Traffic Safety Engineer.

The Region Traffic Safety engineer will provide:

- The Safety Certification Worksheet, see FDM 11-38, att. 10.2.
- Map of all the PDP segments on the project.
- Spreadsheet of all crashes on the project **with vetted comments for all crashes on flagged segments or intersections.**
- Spreadsheet of all the intersections on the project, with LOSS ratings.
- IHSDM outputs for proposed safety improvements, if any.
- Benefit/Cost analysis of proposed safety improvements, if any. PDS may need to verify program level costs of some improvements, like roundabouts or left turn lanes, prior to the completion of the benefit-cost analysis.
- The Safety Certification document, see FDM 11-38, att. 10.8.

10.3.1 Intersection Improvements

BTO has developed a Level of Service of Safety (LOSS) spreadsheet that contains all intersection on the State Trunk Network. If an intersection has a rating of LOSS 4, it is considered a flagged intersection. Other intersections are eligible for benefit / cost analysis, but only LOSS 4 intersections require a review. The Traffic Safety Engineer will evaluate **crashes** at flagged intersections to determine if **crashes are treatable**. If treatable **crashes** exist, the Traffic Safety Engineer will develop one or more scoping level alternatives and perform benefit-cost analyses, and IHSDM models, for each alternative. An intersection control evaluation (ICE) will then be submitted to BTO, to determine the preferred alternative. Some locations may require both Phase 1 and Phase 2 Intersection Control Evaluations. Alternatives **with** a benefit-cost ratio greater than **zero, will be included in the ICE process.**

10.3.2 Updating Crash Data for DSR

It is typical for the Bureau of Project Development (BPD) Oversight Engineer to request updated crash data prior to DSR submittal. It is the Regional Traffic Safety Engineer's responsibility to provide this.

10.4 References

[FDM 11-38](#) Safety Certification Process

SW Region Madison Traffic Safety Engineer - Charlene Schmid, charlene.schmid@dot.wi.gov

SW Region La Crosse Traffic Safety Engineer - Brad Byom, brad.byom@dot.wi.gov

SW Region La Crosse Scoping Engineer - Jaime Boado, jaime.boadojr@dot.wi.gov

SW Region La Crosse Scoping Engineer - Todd Waldo, todd.waldo@dot.wi.gov

SW Region Madison Scoping Engineer - Rachel Potter, rachel.potter@dot.wi.gov

SW Region Madison Scoping Engineer - Steve Somerfeld, stephen.somerfeld@dot.wi.gov

SW Region Traffic Supervisor - Andy Winga, andrew.winga@dot.wi.gov

BPD Oversight Engineer - Rob Reukema, robert.reukema@dot.wi.gov

Ryan Mayer & Brad Byom

11/19/2015

Author

Date

7-80-15 Transportation Management Plan (TMP)

Updated December 21, 2021

15.1 Originator

Systems Planning & Operations - Operations

15.2 Introduction

This section describes the process for the creation and approval of the Transportation Management Plan.

15.3 Process

All let projects require a Transportation Management Plan or TMP. The PDS project manager (PM) is responsible for creating this document in the online TMP system located on the WisTransPortal website (<http://transportal.cee.wisc.edu/>). The project manager then delegates a preparer of the TMP. After the preparer has completed the TMP, it is sent back to the PM for approval.

After the project manager approves the TMP, the PM needs to route the TMP to the Regional Traffic Engineer

(RTE) for review. Once the RTE has completed the review and submitted comments, the RTE will click “reviewed”. This will send the TMP back to the preparer and the PM. At this time, the preparer needs to make the changes to address the comments from the RTE. Once those comments are addressed, the PM will then route the TMP for approval. The RTE then will review and approve the TMP if the necessary changes have been made. Once the TMP is approved by the RTE, it is automatically routed for approval to the appropriate PDS Manager and then onto Central Office for Bureau of Traffic Operations (BTO) approval. If the project has federal oversight, the TMP will also be routed to the Federal Highway Administration (FHWA) for approval. Since an approved TMP is required to submit the DSR, the first version of the TMP must be completed by the end of the Design Study Phase.

Local Program TMP's are also handled through the online site. These TMP's have a different approval process. Work with the Local Program project manager to get these TMP's approved.

TMP's are considered living documents and should be updated if changes in the project are required that affect how traffic will be handled. If changes are made to the TMP after the 60% approval, it will need to be reviewed for approval again at the 90% point of the project. Changes can and should be made to the TMP throughout the rest of the design and construction of the project if needed. Minor changes can be made via email but should be added as attachments to the TMP file. Any changes via email should be sent to everyone that approved the TMP. At PS&E, the design PM will add the construction PM in the TMP to the Team list. The construction PM needs to go in and mark the TMP complete once construction is done. They will have the opportunity to comment on how well the TMP strategies worked in construction.

Prior to PS&E submittal, a copy of the TMP should be converted to a pdf and placed in the project folder in Box. Specifically, in the “**Construction/Project ID/DesignLinks**” subfolder. All attachments should be inserted at the end of the TMP file before placing it in the project folder. The Construction PM will be responsible for coordinating any changes and updating the TMP during construction. Construction staff should have access to the files and be able to view them when needed from the field office.

15.4 References

[FDM 11-50-5](#) Transportation Management Plan Process

Region Work Zone Engineer and TMP Contact (LAX) - Joe Schneider, joseph.schneider@dot.wi.gov

Region Work Zone Engineer and TMP Contact (MAD) - *currently vacant*

PDS Manager - Karla Knorr, karla.knorr@dot.wi.gov

PDS Manager - Brandon Lamers, brandon.lamers@dot.wi.gov

PDS Manager - Todd Matheson, todd.matheson@dot.wi.gov

PDS Manager - Anne Wallace, anne.wallace@dot.wi.gov

FHWA Representative - Anthony Norman, anthony.norman@dot.gov

Joe Schneider

8/12/2015

Author

Date

7-80-20 Incident Management Plan (IMP)

Updated December 21, 2021

20.1 Originator

Systems Planning & Operations - Operations

20.2 Introduction

This section describes incident management plans and when they are needed.

20.3 Process

An Incident Management Plan or IMP is a set of strategies used to manage work zone traffic operations in case of congestion, whether it is from an incident or just loss of capacity due to the work zone. IMP's address unplanned events or incidents for TMP project type 2 on freeways/expressways, and all TMP type 3 projects to ensure effective management of responses within the work zone.

It is the intent of WisDOT to minimize impacts and delays to motorists and to promote safety in work zones. Planning for traffic incidents that occur within work zones is a critical component of reducing delay and increasing the safety, mobility and reliability of the highway system.

An IMP should be discussed in the TMP process. If it is decided that an IMP is needed, the project designer should work with the Region Work Zone engineer to develop one. Most of the information contained in the IMP

will be project related including project summary and emergency contact information. Refer to the Traffic Engineering, Operations & Safety Manual (TEOpS), [TEOpS 6-3-10](#) for an outline of information to include in an IMP. The Region Work Zone engineer will be able to assist in filling out the parts of the document regarding PCMS and alternate route information and the State Traffic Operations Center (STOC) and the Regional Duty Officers (RDO) roles. Due to some of the contact information not being available until after the project is let, the IMP will need to be finalized by the project supervisor, who may delegate to the construction project manager. The project supervisor also will coordinate with the Division of State Patrol (DSP) if there is any mitigation involved. There are examples of IMP's provided below that can be used as references.

Once the project is let and the emergency contacts are added, the IMP can be considered complete. At this point, a pdf copy of the IMP should be placed in the project folder in **Box**. Specifically, in the "[Construction/Project ID/DesignLinks](#)" subfolder. Any updates required to the IMP after let may require coordination with a different supervisor since the design and construction supervisors aren't always the same. Construction staff should have access to the files and be able to view them when needed from the field office.

20.4 References

[TEOpS 6-3-10](#) Work Zone Incident Management Plans (IMPs)

Example IMP's:

[IMP Example #1](#)

[IMP Example #2](#)

[IMP Example #3](#)

Region Work Zone Engineer and IMP Contact (LAX) - Joe Schneider, joseph.schneider@dot.wi.gov

Region Work Zone Engineer and IMP Contact (MAD) - *currently vacant*

Joe Schneider
Author

8/12/2015
Date

7-80-25 Intersection Design and Operations

February 26, 2015

25.1 Originator

Systems Planning & Operations - Operations

25.2 Introduction

This section identifies essential points when considering advanced forms of traffic control or innovative intersection design for at-grade and ramp terminal intersections. It should be noted that modifications to an existing intersection control may be subject to an intersection control evaluation (ICE) analysis used to determine the appropriate control type. Please refer to [FDM 11-25-3](#) for the ICE process.

25.3 Process

Intersections identified at scoping or through the plan development process as requiring evaluation of higher-level intersection controls or geometric design will need to be discussed with Region Traffic staff.

Examples of such intersection controls may include, but are not limited to, the following:

- All-Way STOP Control (AWSC),
- Roundabout,
- Signalization, or
- Innovative or enhanced intersection designs/controls (i.e.: J-turns, advance warning beacons, intersection lighting).

Related issues to consider will include:

- Design and/or device appropriateness,
- Geometric requirements (related to traffic control device placement, capacity, alternate modes, oversize/overweight (OS/OW)),
- Operations and maintenance,
- Facility ownership, and
- Permitting requirements.

25.4 References

[FDM 11-10](#) Design Controls

[FDM 11-25](#) Intersections at Grade

[FDM 11-26](#) Roundabouts

[FDM 11-30](#) Interchanges

Region Work Zone Engineer and ICE Contact (LAX) - Joe Schneider, joseph.schneider@dot.wi.gov

Region Traffic Engineer and ICE Contact (MAD) - *currently vacant*

Graham Heitz

2/26/2015

Author

Date

7-80-30 Traffic Signals

Updated December 21, 2021

30.1 Originator

Systems Planning & Operations - Operations

30.2 Introduction

This section describes the process for determining the level of traffic control signal design effort required for an improvement project.

30.3 Process

All proposals for new traffic control signals, proposed revisions to existing traffic control signals, and temporary traffic control signals need to be coordinated with the Region Traffic engineer.

Identify Potential Locations

Most locations within a project that may involve traffic control signals are identified during the scoping process and are documented in the scoping notes. Other sources of inquiries about traffic control signals are the various project meetings with local officials and the public.

Review Locations with Region Signals Traffic engineer

Confer with the Region Traffic engineer early in the design process. If the project is to be designed by a consultant, start discussing traffic control signals with the Region Traffic engineer during the contract development stage. If the project is an in-house design, start this discussion during the project schedule development.

The Region Traffic engineer identifies who owns and maintains the proposed/existing traffic control signals. Based on the ownership and maintenance authority, the Region Traffic engineer determines what tasks are required by the project.

These tasks may include, but are not limited to, the following:

- Turning movement counts
- Signal Investigation Study
- Warrant Analysis
- Traffic Signal Design and Layout
- Signal Timing Development
- Temporary Signal Plan Development/Traffic Control

30.4 References

SW Region Operations Engineer - Collin Webb, collin.webb@dot.wi.gov

SW Region Traffic Engineer - Joseph La Mere, joseph.lamere@dot.wi.gov

SW Region Traffic Engineer - David Wronski, david.wronski@dot.wi.gov

SW Region Traffic Supervisor - Andy Winga, andrew.winga@dot.wi.gov

Dena Dramm

2/25/2015

Author

Date

7-80-35 Intelligent Transportation Systems (ITS)

Updated December 21, 2021

35.1 Originator

Systems Planning & Operations - Operations

35.2 Introduction

This section describes the process to determine the level of Intelligent Transportation System (ITS) design effort required for an improvement project. Safety, traveler information, traffic surveillance, traffic detection, and network communications are major functions of ITS. Typical devices include closed circuit television (CCTV) cameras, non-intrusive microwave (MW) detectors, dynamic message signs (DMS), fiber optic cable and electrical power sources.

35.3 Process

ITS development should be initiated during the scoping process. The design project manager should contact the SW Region ITS engineer to confirm ITS needs when beginning the design phase for all proposals that include existing ITS within the projects limits, above and below ground surface, and all proposals on a freeway system. ITS revisions, additions, or removals require coordination with the Bureau of Transportation Operations (BTO) and the Statewide Traffic Operations Center (STOC) as described in the [ITS Design and Operations Guide](#). The SW Region ITS engineer provides input accordingly and coordinates with the BTO and STOC.

Identify Potential Locations

Existing and proposed ITS within project limits should be identified by the scoping team at a conceptual level during the scoping process and provided in the scoping notes. All ITS detail may not be identified during scoping and there may be limited as-built plans or documentation available for ITS. Actual field conditions may need to be confirmed and documented through the design process. Assistance may be provided by the STOC depending on information availability. Examples of STOC involvement may include, but not limited to, ITS facility locates, device feasibility, or electronic information to the extent available. The SW Region ITS engineer should be contacted when additional ITS are suspected to be impacted by the project. Other ITS, managed by various entities, may be present within the project limits and additional coordination by the design team directly with those entities may be required.

Review Locations

The ITS concept should be confirmed by the design team with the SW Region ITS engineer prior to the completion of the initial design phase. Preliminary ITS plan sheets may be reviewed by the SW Region ITS engineer midway through the design schedule (60% - Design Study Review) to encourage timely coordination, additional information, and final ITS review prior to the Plans, Specifications and Estimate (PS&E) submittal.

Statewide Procurement

Specific ITS items are procured through a statewide process managed by the BTO. The design team should provide a final list of ITS procurement items, by fiscal year, to the Statewide ITS engineer and the SW Region ITS engineer.

Design Summary

Design tasks to be carried out by Project Development staff may include, but are not limited to, the following:

- Confirm the scope of the ITS concept
- Communication and coordination with various ITS entities
- Confirm or document existing ITS facilities
- Procurement item list by fiscal year
- Design ITS: plans, details, special provisions, communication schematics, etc.

35.4 References

[ITS Design and Operations Guide](#)

[TEOpS Chapter 17](#)

SW Region ITS Engineer - David Wronski, david.wronski@dot.wi.gov

Statewide ITS Engineer - Dean Beekman, dean.beekman@dot.wi.gov

Kyle Hemp
Author

3/2/2015
Date

7-80-40 Highway Lighting

Updated December 21, 2021

40.1 Originator

Systems Planning & Operations - Operations

40.2 Introduction

This section describes the process of determining the level of highway lighting design effort required for an improvement project.

40.3 Process

All proposals for new lighting and proposed revisions to existing lighting need to be coordinated with the Region Traffic Operations engineer. Some lighting proposals need approval from the Bureau of Transportation Operations (BTO). The Region Traffic engineer coordinates this approval process with BTO.

Identify Potential Locations

Most locations within a project that may involve highway lighting are identified during the scoping process and are documented in the scoping notes. Other sources of inquiries about highway lighting are the various project meetings with local officials and the public.

Review Locations with Region Operations engineer

Confer with the Region Operations engineer early in the design process. If the project is to be designed by a consultant, start discussing highway lighting with the Region Operations engineer during the contract development stage. If the project is an in-house design, start this discussion during the project schedule development.

The Region Operations engineer identifies who owns and maintains the proposed/existing highway lighting. Based on the ownership and maintenance authority, the Region Operations engineer determines what tasks are required by the project.

These tasks may include, but are not limited to, the following:

- Highway Lighting Design and Layout
- Illumination Calculations
- Permit Preparation and Submittal

The discussion with the Region Operations engineer is especially crucial if the project is proposing a roundabout on local roads where the lighting needs to be maintained by a local unit of government. If the local unit of government does not agree to maintain the lighting, the project must come up with a different form of intersection control.

40.4 References

SW Region Operations Engineer - Collin Webb, collin.webb@dot.wi.gov

SW Region Traffic Engineer - Joseph La Mere, joseph.lamere@dot.wi.gov

SW Region Traffic Engineer - David Wronski, david.wronski@dot.wi.gov

Dena Dramm

Author

2/25/2015

Date

7-80-45 Installation of Crosswalk Markings, Flashing Beacons, and Community-Owned Signs

Updated December 13, 2017

45.1 Originator

Systems Planning & Operations - Operations

45.2 Introduction

Crosswalks

WisDOT does not maintain crosswalk markings, which cross the state highway system except at State maintained traffic signals or roundabouts. New or replacement crosswalk markings **shall** be at the request of the local municipality and subject to review by the regional traffic section.

Flashing Beacons

Flashing beacons (a.k.a. flashers, warning flashers, beacons, Rectangular Rapid Flashing Beacons (RRFB), hazard identification beacon) are a special type of signal indication, used to supplement standard regulatory and warning signs. Flashing beacons have the following applications:

- Intersection Control Beacon
- Stop Beacon
- Speed Limit Sign Beacon

- Warning Beacon

Compression Braking Signs (No Engine Braking)

The use of signs specific to engine or compression braking has become popular among many communities, although it is unclear whether those signs are effective or necessary. In the case of engine braking, the Department has chosen to work with communities and allow limited use of these signs on state highways under certain conditions, despite the lack of evidence that they are effective in reducing noise problems.

Community Parking Restriction Signs

Wisconsin State Statutes 349.13(1e)(c)(2) gives municipalities the authority to enact ordinances and post signs at or reasonably near the corporate limits of the municipality on all state and county trunk highways and connecting highways. The intent of posting signs is to inform motorists that 24-hour parking limitations, night parking regulations or snow emergency regulations are in effect in the municipality.

Community Way Finding Signs

These are signs, allowed by permit, which are owned and maintained by the community and direct people to:

- Municipal area destinations such as Downtown, or Historic District,
- Individual destinations that are publicly leased or owned and operated for public use, such as City Hall, Convention Center, and local parks
- Privately owned non-profit facilities open to the public, such as a local museum or ice center.

45.3 Process

Crosswalks

The project designer should work with the region traffic section to review existing crosswalk locations to make sure there is a permit on file. New locations will require a new permit with the municipality, which should be reviewed by the regional traffic section.

Application/Permit for Pedestrian Crosswalk Marking: [DT2136](#)

Flashing Beacons

For existing flashing beacons, reasonable notice should be given to a municipality to allow their removal of the equipment and arranging for disconnecting the electrical service. Projects are a good time to get any substandard flashers removed and potentially replaced with equipment that is up to current standards if the municipality wishes to continue having the beacon.

At locations where local authorities determine that the use of flashing beacons is desirable, a permit may be issued for the installation and maintenance of flashing beacons. The designer should work with the regional traffic section to determine the location and type of flashing beacon.

WisDOT may determine that flashing beacons are needed and may install and maintain them at specific sites. In this case, the Region Traffic Unit **shall** make a final determination regarding the use of these devices on behalf of the Department.

Flashing Beacon Installation Application/Permit: [DT1877](#)

Compression Braking Signs

For a municipality to install these signs, a permit is needed. The municipality must have a noise ordinance in place and submit it with the permit application. The municipality must also have the ability to enforce the noise ordinance with law enforcement. There is no formal permit template for these signs; instead, the process will be initiated with a letter. Work with the region traffic section to get the required information that will be needed to determine if the signs will be allowed. Replacement of these signs should not be paid for as part of a project.

Community Parking Restriction Signs

A municipality must have a parking ordinance passed prior to requesting a permit for a sign. The municipality **shall** submit a written request for a permit to the regional office. Work with the regional traffic section to determine the required information that is needed from the municipality.

Community Way Finding Signs

The Department will allow the local agency, by permit, to install and maintain community way finding signs on the right-of-way of the conventional state trunk highway system. These signs **shall not** be permitted on freeways or expressways. Work with regional traffic section to determine what is needed from the municipality.

General Signs within a municipality

If there is an existing sign on the project, please check with the regional traffic section to see if it is permitted. If a municipality requests a new sign also work with the regional traffic section to see if it is an appropriate area for a sign to be permitted.

45.4 References

Application/Permit for Pedestrian Crosswalk Marking: [DT2136](#)

Flashing Beacon Installation Application/Permit: [DT1877](#)

Traffic Engineering, Operations & Safety Manual (TEOpS)

[TEOpS 3-2-3](#) Special Marking

[TEOpS 4-5](#) Beacons

[TEOpS 2-2-30](#) Engine Brake Signing

[TEOpS 2-2-41](#) Community Parking Restriction Signs

[TEOpS 2-15-6](#) Community Wayfinding Signs

Region Work Zone Engineer (LAX) - Joe Schneider, joseph.schneider@dot.wi.gov

Region Work Zone Engineer (MAD) - *currently vacant*

Joe Schneider

8/25/2015

Author

Date

7-80-50 Electrical Installation Plans

Updated December 21, 2021

50.1 Originator

Systems Planning & Operations - Operations

50.2 Introduction

This section describes the process for developing the final plan for various electrical installations owned, maintained, and operated by WisDOT SW Region.

50.3 Process

An Electrical Installation Plan is needed by the SW Region Traffic unit as the official documentation of each electrical installation owned, operated, and maintained by this unit. The Electrical Installation Plan must depict the anticipated electrical system after the construction project is complete. This plan is needed for WisDOT to operate the system post improvement project and to fulfill open records requests on these electrical installations.

An Electrical Installation Plan is a plan that correctly depicts the field elements of the WisDOT electrical installation in a concise manner. The Electrical Installation Plans are in addition to construction plans that are submitted for PS&E. The types of facilities requiring an Electrical Installation Plan are traffic control signals, highway lighting systems, rest area lighting, Safety & Weight Enforcement Facility (SWEF) lighting, flashing beacons, ramp gates, and underground conduit systems for future electrical installations. A list of electrical installations requiring an Electrical Installation Plan is maintained by the SW Region Traffic unit.

This procedure does not apply to Intelligent Transportation System (ITS) installations. The development of final ITS installation plans are managed by non-region staff.

No attempt is made by this plan to precisely depict utility locations and other physical features that are not a part of the WisDOT installation.

To minimize the consultant electrical design effort needed to develop an Electrical Installation Plan, the designer should ensure that the following information is included on the electrical construction plan sheets:

1. Standard electrical legend, symbols, and title block obtained from the WisDOT AutoCAD "signalXX.dwg" and "lightingXX.dwg" block libraries located under the C:\Wisdot\Std\C3d20XX\Components\Blocks folder.
2. Location, municipality, and county as verified by SW Region Traffic unit
3. Electrical installation number as assigned by SW Region Traffic unit per Traffic Engineering, Operations & Safety Manual (TEOpS) policy [TEOpS 11-14-1](#).

An Electrical Installation Plan is then developed from the construction plan sheets by editing information that was needed for project construction. Changes would include:

1. Remove obliterated roadways.
2. Remove old electrical equipment that was removed.
3. Remove construction notes.
4. Remove survey data such as PI, PT, etc.
5. Remove shrubbery, tree, etc. symbols that now fall in the new roadway.
6. Change survey symbols, of electrical elements not altered by the project, to the standard electrical symbols.

When multiple electrical installations exist at one location, multiple Electrical Installation Plans need to be developed. An example of this situation is an intersection that has both a traffic signal and a large lighting system and each installation has its own separate control cabinet.

In this case, two Electrical Installation Plans need to be developed. The elements of both electrical installations should be shown in both Electrical Installation Plans. However, if the Electrical Installation Plan is for the traffic control signal (as designated by the title block), then the traffic signal elements should be emphasized by showing them in black and the lighting elements should be grey shaded. Likewise, for the lighting Electrical Installation Plan, the lighting elements should be emphasized in black and the traffic signal elements grey shaded.

When the Electrical Installation Plans are complete, submit all electronic files to the SW Region Traffic Section.

50.4 References

[TEOpS 11-14-1](#) Electrical Inventory Numbering System Guidelines

[Example 1 - Traffic Signal Plan](#)

[Example 2 - Highway Lighting Plan](#)

Region Operations Engineer - Collin Webb, collin.webb@dot.wi.gov

SW Region Traffic Engineer - Joseph La Mere, joseph.lamere@dot.wi.gov

SW Region Traffic Engineer - David Wronski, david.wronski@dot.wi.gov

Region Traffic Supervisor - Andy Winga, andrew.winga@dot.wi.gov

Dena Dramm

Author

8/29/2016

Date